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The details of my work are given in a forthcoming *Lick Observatory Bulletin*. The elements now computed are as follows:—

True Orbit.	Apparent Orbit.
$P = 44.5$ years	Length of major axis $1''.464$
$T = 1905.4$	Length of minor axis 0.802
$e = 0.767$	Dist. of star from center 0.561
$a = 0''.701$	Angle of major axis $11^\circ.0$
$\omega = 352^\circ.6$	Angle of perihelion 13.5
$\Omega = 20.4$	Position angles increasing.
$i = \pm 29.1$	

These results are considered as approximate only. The apparent motion of the companion will be so rapid during the next few years that data will soon be available for a more complete discussion of the theory of the system than seems advisable at present.

R. G. AITKEN.

May 29, 1905.

NEW COMPANIONS TO THREE STRUVE DOUBLE STARS.

In the course of my systematic search for new double stars I have recently found additional close companions to the well-known pairs, $\Sigma 419$, $\Sigma 1000$, and $\Sigma 1823$. The mean results of my measures of the new and old companions are as follows:—

$\Sigma 419$.

1905.13	$347^\circ.4$	$0''.44$	$7.4 - 9.8$	2^n	B and C. New.
1905.13	$73^\circ.6$	$3''.08$	$7.2 - 7.3$	2	A and B = $\Sigma 419$.

$\Sigma 1000$.

1904.95	$313^\circ.8$	$0''.27$	$8.2 - 8.5$	2^n	A and B. New.
1904.94	66.8	22.29	$8.0 - 9.0$	1	AB and C = $\Sigma 1000$.

$\Sigma 1823$.

1905.34	$239^\circ.2$	$0''.21$	$9.0 - 9.5$	2^n	A and B. New.
1905.34	149.6	3.49	$8.7 - 9.7$	2	AB and C = $\Sigma 1823$.

My measures of $\Sigma 419$ and $\Sigma 1000$ give practically the same results as those obtained by STRUVE seventy-five years earlier. STRUVE's measure of $\Sigma 1823$ is:—

$$1830.0 \quad 156^\circ.1 \quad 3''.35 \quad 8.5 - 9.5.$$

May 23, 1905.

R. G. AITKEN.